

Appl. No. 10/748,650
Amdt. dated December 7, 2006
Reply to Office Action of August 8, 2006

REMARKS/ARGUMENTS

Claims 1-16 and 20 are presented for Examiner's consideration. Pursuant to 37 C.F.R. § 1.111, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

I. 35 U.S.C. §102 Rejections

Claims 1-3 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Galber U.S. patent number 2,338,635. Galber discloses a glue applicator roll having a wood gripping surface 5' and a groove 3 for applying glue to wood veneer core stock. The purpose of the invention is not to emboss the veneer surface thereby making a pattern, but instead to apply glue to the veneer surface enabling the surface to be adhered to an adjacent surface when making plywood. It is questionable as to whether the roll disclosed by Galber produces any embossing in the veneer surface at all.

Applicants have amended claim 1 to recite that the first sidewall extends from a base to a top, the second sidewall extends from the base to the top, and that the second sidewall opposes the first sidewall. Support for the amendment can be found in the definition of a sidewall on page 6, lines 18-19, and in Figure 3 where the sidewalls 44 and 46 are shown opposed to each other and extending from the base 42 to the top 22. No new matter is believed to be introduced by the amendment. In Galber, sloping sides 9 of the wedge-like extremities 10 do not extend from the top of the element to the flat base 6'. Instead they only extend to the shelf portion 8 of the applicator roll, as discussed at page 3, column 1, lines 17-31. Similarly, sloping groove walls 7' extend only from the flat base 6' to the shelf portion 8 and not to the top of the element. Furthermore, the sloping sides 9 and the sloping groove walls 7' do not oppose each other since they terminate at the shelf portion 8 and do not overlap. As such, claim 1 is not anticipated by Galber.

Applicants have amended claim 2 to recite that the first sidewall extends from a base to a top, that the second sidewalls extend from the top towards the base, and that the first sidewall angle is greater than the second sidewall angle by about 5 degrees or more. Support for the amendment can be found in the definition of a sidewall and in Figure 3. No new matter is believed to be introduced by the amendment. Galber does not disclose a pair of exterior first sidewalls extending from a base to a top since the Examiner has stated element 9 of Galber corresponds to the exterior sidewalls. Galber also does not disclose a pair of interior sidewalls extending from the top towards the base since the Examiner has stated element 7 of Galber corresponds to the interior sidewalls. Galber defines element 8 as an intermediate land or shelf. Thus, element 5' is the top since it contacts the wood surface and grips it. Galber teaches that element 6' is a flat base. As such, Claim 2 is not anticipated by Galber.

Page 4 of 7

Appl. No. 10/748,650
Amdt. dated December 7, 2006
Reply to Office Action of August 8, 2006

II. 35 U.S.C. §103(b) Rejections

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the Applicant's disclosure. *In re Vaeck*, 947 f.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claims 4-13 and 20 stand rejected under 35 U.S.C. §103(a) as obvious in view of Galber. As stated above for the §102 rejection, Galber fails to teach or disclose all of the claimed invention for the specific geometry claimed. As such, a *prima facie* case of obviousness has not been established since the missing claim terms discussed above for the 102 rejection are not taught or disclosed by Galber.

Furthermore, Galber is directed to an applicator roll for applying glue to wood. It is not established that such a roll embosses the wood surface or that the roll contains an embossing element as claimed. Galber is non-analogous art and its purpose is to apply glue. Thus, one of skill in the art of embossing would not be motivated to modify the reference to obtain the claimed angles as suggested by the Examiner. Galber is concerned with optimizing glue application. Thus, relatively shallow sidewall angles are used as disclosed in the Table on page three to ensure a suitable groove for applying glue is obtained. The Applicant is concerned with embossing paper and with improving the embossing pattern definition in paper products. The Applicant has discovered that non-symmetrical embossing elements having relatively steep interior sidewall angles, as claimed, produce better embossing patterns. Galber discloses that the sidewall angle of element 9 is 67.5 degrees from horizontal or 22.5 degrees from vertical, as defined by the Applicant. Galber discloses that the sidewall angle of element 7 is 52 degrees from horizontal or 38 degrees from vertical, as defined by the Applicant. Galber also discloses that the sidewall angle does not change in the Table on page three for different glue applicator rolls to change the application rate from 50 lbs. to 150 lbs. Thus, there is no suggestion or motivation in Galber to change the sidewall angle even for the purpose of modifying the glue application rate. The Applicant claim much shallower sidewall angles in claims 6, 7 such as less than 10 degrees or less than 5 degrees. This is significantly lower than the 38 or 22.5 degree angles disclosed by Galber. There is no motivation to change the sidewall angle to obtain the claimed invention, since Galber does not

Appl. No. 10/748,650
Amdt. dated December 7, 2006
Reply to Office Action of August 8, 2006

teach or suggest changing the angle for any purpose, let alone for the purpose of increasing the embossing definition.

With regard to the claimed gap distance in claims 12 and 13, Galber does not teach or suggest modifying the gap to obtain improved embossing. Galber discloses only that the width of the groove can be changed to vary the glue application rate, as seen in the Table on page 3. Furthermore, the minimum top gap disclosed by Galber is 0.045 inches, which is much greater than the claimed less than 0.030 inches. There is no motivation to reduce the gap as claimed for the purposes of improving embossing definition, since Galber does not teach or disclose an embossing element or roll.

Claims 15-16 stand rejected under 35 U.S.C. §103(a) as obvious over Galber in view of Schulz U.S. patent number 5,597,639. Claims 15 and 16 recite that the top radius for the exterior sidewalls is different than the top radius for the interior sidewalls. Schulz discloses the use of a top radius; however, Schulz does not teach or suggest different top radii as claimed. Figures 3 and 4 show a top radius where each of the sidewalls meets the top. As seen, the radius for each sidewall is the same or symmetrical. Schulz does not teach or suggest a different top radius for each portion of the embossing element as claimed.

Claims 1-14 and 20 stand rejected under 35 U.S.C. §103(a) as obvious over Burgess U.S. patent number 6,302,998 in view of either Galber or Kishimi, U.S. patent application number 2004/0026239. The Examiner has correlated the elements to the left of reference number 270 and to the right of reference number 271 as the pair of exterior first sidewalls in Figure 5. The Examiner has correlated the elements to the left and right of reference number 269 as the pair of interior sidewalls in Figure 5. However, this is clearly contradictory to the teaching of Burgess. Burgess clearly states that in reference to Figure 5 at column 5, lines 39-41, "The second roll 252 has two sets of female embossing elements 268, 269 and two sets of male elements 270, 271." Thus, the Examiner in making his rejection has combined the sidewalls from four different embossing elements. The Applicant claims that the same embossing element has all of the recited features.

Furthermore, there is no motivation to combine the references as suggested. Burgess is the only reference concerned with embossing paper. Galber, as discussed, is a glue applicator roll. One of skill in the embossing art would not be motivated to modify the angles of Galber to improve embossing clarity for the reasons stated above. Kishimi is concerned with forming electrodes in metal plates and is non-analogous art. The metal plate disclosed in Kishimi punches holes in the electrode to form it. As such, much shallower sidewall angles are used to accomplish the desired task of perforating and forming the metal electrode. The Applicant uses and claims much steeper

Appl. No. 10/748,650
Amdt. dated December 7, 2006
Reply to Office Action of August 8, 2006

sidewall angles to improve embossing clarity. One of skill in the art of embossing would not be motivated to modify the angles disclosed to punch holes in metal plates to those claimed for improving embossing definition in paper products. Furthermore, claim 2 has been amended to recite that the exterior sidewall angle is greater than the interior sidewall angle by about 5 degrees or more. Kishimi discloses the exact opposite in Figure 6 where the interior sidewalls are much shallower than the exterior sidewall angles to punch through the metal as desired.

For the reasons stated above, it is respectfully submitted that all of the presently presented claims are in form for allowance. Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. The undersigned may be reached at: (920) 721-7760.

Respectfully submitted,

LEE D. WILHELM

By: Scott A. Baum

Scott A. Baum

Registration No.: 51,237

Attorney for Applicant(s)

CERTIFICATE OF TRANSMISSION

I, Lanette Burton, hereby certify that on December 7, 2006, this document is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (571) 273-8300.

Typed or printed name of person signing this certificate:

Lanette Burton

Signature:

Lanette Burton